

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method of printing cartridge maintenance comprising:
recording reading printing history data for said printing cartridge and a predetermined usage threshold stored in a memory device on said printing cartridge with a controller also disposed on said printing cartridge,
reading said printing history data from said memory device, and
refilling at least a portion of said printing cartridge if usage of said cartridge, as determined from said printing history data, does not exceed ~~said a~~ predetermined threshold.
2. (original) The method of claim 1, wherein refilling at least a portion of said printer cartridge further comprises determining a current level of consumable substance contained in said printing cartridge.
3. (currently amended) A method of printing cartridge maintenance comprising:
reading printing history data for said printing cartridge and a predetermined usage threshold stored in a memory device on said printing cartridge;
refilling at least a portion of said printing cartridge if usage of said cartridge, as determined from said printing history data, does not exceed said predetermined threshold; and
~~The method of claim 1, further comprising~~ determining a remaining useful life of said printing cartridge by comparing said printing history data and said predetermined threshold.

4. (previously presented) The method of claim 3, wherein determining a remaining useful life of said printing cartridge further comprises outputting an indication of said remaining useful life.
5. (previously presented) The method of claim 1, further comprising recording any amount of consumable substance added to the printing cartridge in said memory device.
6. (original) The method of claim 5, further comprising reading customer identification information recorded on said printing cartridge.
7. (previously presented) The method of claim 1, further comprising replacing or resetting said memory device after reading said printing history data.
8. (previously presented) The method of claim 1, further comprising preventing the refill of said printing cartridge if said usage as determined from said printing history exceeds said predetermined threshold.
9. (original) The method of claim 1, further comprising reconditioning said printing cartridge.
10. (original) The method of claim 9, wherein said reconditioning comprises emptying or cleaning a collection chamber of said printing cartridge.
- 11-19. (cancelled).

20. (previously presented) A device refilling system comprising:
- a printing cartridge for containing a supply of consumable substance;
 - a memory device incorporated with said cartridge for recording a printing history of said cartridge; and
 - a refilling station for reading information recorded on said memory device and selectively refilling said cartridge;
- wherein said refilling station includes a computer for reading said printing history of said memory device and for determining a remaining useful life of the cartridge; and
- wherein said computer compares said printing history to one or more predetermined useful life metrics.
21. (original) The system of claim 20, wherein said memory device comprises a non-volatile memory chip readable by a computer.
22. (original) The system of claim 21, wherein said memory device comprises an RFID having an antenna for communication with a transmitter of a printing device or said refilling station.
- 23-24. (cancelled).
25. (previously presented) The system of claim 20, wherein said refilling station prevents refilling of said cartridge if said computer determines said cartridge has no remaining useful life.

26. (previously presented) The system of claim 20, wherein said refilling station further comprises a supply of consumable substance.
27. (original) The system of claim 26, wherein said filling station further comprises a consumable substance delivery port for refilling said cartridge.
28. (original) The system of claim 27, wherein said cartridge further comprises a consumable substance refill port configured for engagement with said substance delivery port for receiving consumable substance from said refilling station.
29. (original) The system of claim 28, wherein said cartridge further comprises an inkjet cartridge.
30. (original) The system of claim 28, wherein said cartridge further comprises a toner cartridge.
31. (original) The system of claim 30, wherein said toner cartridge is a laser printer toner cartridge or a copier toner cartridge.
32. (original) The system of claim 20, wherein said printing history comprises one or more of: printing cartridge use time, quantity of consumable substance delivered, number of pages produced, number of pixels printed, number of cleaning cycles performed, number of

calibrations cycles performed, types of jobs printed, age of printing cartridge from manufacture date; and cartridge time above a specified temperature.

33. (original) The refilling station of claim 20, further comprising a consumable substance gauge for measuring the amount of consumable substance in said printer cartridge.

34. (currently amended) A method of refilling a printing cartridge comprising the steps of:

providing a refill station having a cartridge receptacle and a delivery port configured to engage said cartridge when said cartridge is placed in said cartridge receptacle;

reading usage information stored on said cartridge when said cartridge is in said cartridge receptacle;

and replenishing at least two different kinds of consumable substances ~~a substance~~ in said cartridge through said delivery port if said usage information indicates said cartridge has not been used beyond a useful operational life of said cartridge;

wherein a first of said consumable substances is ink or toner.

35. (currently amended) The method of claim 34, further comprising:
recording to said cartridge an amount of said substances delivered.

36. (previously presented) The method of claim 34, further comprising:
providing a database writable by said refill station;
receiving a customer identifier from said cartridge when in said refill station; and
recording said customer identifier to said database.

37. (previously presented) The method of claim 34, further comprising:
indicating with a user interface on a printing device in which said cartridge is installed that said cartridge may be refilled when said substance is exhausted from said cartridge and said useful operational life has not been expended.
38. (original) The method of claim 34, further comprising:
automatically tracking usage of said cartridge; and
recording said usage to said cartridge as said cartridge is used.
39. (previously presented) The method of claim 34, further comprising:
reading said useful operational life from said cartridge, said useful operational life being written to said cartridge during manufacture of said cartridge.
40. (original) The method of claim 34, further comprising reconditioning said printing cartridge.
41. (currently amended) The method of ~~claim 41~~ claim 40, wherein said reconditioning comprises emptying or cleaning a collection chamber of said printing cartridge.
42. (currently amended) A printing cartridge refilling apparatus comprising:
a supply of consumable substance;
an interface configured for engagement with a used printing cartridge;

a delivery port through which said consumable substance is ejected into a printing cartridge from said supply; and

a computer programmed to read printing cartridge history data from said printing cartridge through said interface;

wherein said computer further comprises a database of information about a plurality of different printing cartridges.

43. (currently amended) A printing cartridge comprising:

a first consumable substance container for containing ink or toner;

a second consumable substance container for containing a different consumable substance;

~~a collection chamber for collecting said consumable substance which is discharged from said container, but not onto a print medium;~~

a memory device for containing printing history data; and

a refilling port in fluid communication with said consumable substance containers, said refilling port being selectively operational according to predetermined printing history data parameters stored in said memory device.

44. (currently amended) The printing cartridge of claim 43, wherein said second consumable substance container is configured to store a lubricant, conditioner or cleaning agent ~~includes multiple containers for a variety of different consumable substances; said refilling port selectively communicating with said multiple containers.~~

45. (currently amended) The printing cartridge or ~~claim 44~~ claim 43, further comprising a controller for controlling said refilling port to selectively communicate with said multiple containers.

46. (currently amended) A method of making a printing cartridge comprising:
disposing a memory device on said printing cartridge for storing printing history data;
providing a controller on said printing cartridge configured to write said printing history data to said memory device; and

storing a predetermined usage threshold in [[a]] said memory device on said printing cartridge such that a remaining useful life of said printing cartridge can be determined by comparing said predetermined usage threshold and printing history data stored on said memory device.

47. (currently amended) The method of claim 46, further comprising ~~filling~~ filling a container of said printing cartridge with a consumable substance.

48. (previously presented) The method of claim 47, further comprising providing a collection chamber for collecting any consumable substance spilled within said cartridge.

49-52. (cancelled)

53. (new) The method of claim 34, wherein a second of said consumable substances is a lubricant.

54. (new) The method of claim 34, wherein a second of said consumable substances is a cleaning agent.

55. (new) The method of claim 42, wherein said information about a plurality of different printing cartridges further comprises a refill capacity value for each of said different printing cartridges.

56. (new) The method of claim 42, wherein said supply of consumable substance comprises two different consumable substances, a first of said substances being ink or toner and a second of said substances being a conditioner.

57. (new) The printing cartridge of claim 43, further comprising a collection chamber for collecting any consumable substance which is discharged from one of said containers, but not onto a print medium.

58. (new) A printing cartridge comprising:
at least one container for storing a consumable substance used in printing;
a memory device on said printing cartridge for storing printing history data;
a controller on said printing cartridge configured to write said printing history data to said memory device

59. (new) The printing cartridge of claim 58, further comprising a predetermined usage threshold stored in said memory device such that a remaining useful life of said printing

cartridge can be determined by comparing said predetermined usage threshold and printing history data stored on said memory device.

60. (new) A printing cartridge refilling system comprising:

a printing cartridge for containing a supply of at least two different consumable substances;

a memory device incorporated with said cartridge for recording a printing history of said cartridge; and

a refilling station for reading information recorded on said memory device and automatically selectively refilling said cartridge with said at least two different consumable substances, wherein said refilling station includes a supply of toner or ink and of a second consumable substance for selective addition to said printing cartridge.

61. (new) The system of claim 60, further comprising a computer for reading said printing history stored on said memory device and for determining a remaining useful life of said cartridge.